

McGRAW-HILL DICTIONARY OF SCIENTIFIC AND TECHNICAL TERMS

**Sixth
Edition**

McGraw-Hill

New York Chicago San Francisco
Lisbon London Madrid Mexico City
Milan New Delhi San Juan Seoul Singapore Sydney Toronto

EXHIBIT B
10/588,419

On the cover: Representation of a fullerene molecule with a noble gas atom trapped inside. At the Permian-Triassic sedimentary boundary the noble gases helium and argon have been found trapped inside fullerenes. They exhibit isotope ratios quite similar to those found in meteorites, suggesting that a fireball meteorite or asteroid exploded when it hit the Earth, causing major changes in the environment. (Image copyright © Dr. Luann Becker. Reproduced with permission.)

Over the six editions of the Dictionary, material has been drawn from the following references: G. M. Garry et al., *Taxonomic Outline of the Prokaryotes*, Release 2, Springer-Verlag, January 2002; D. W. Linzey, *Vertebræ Biology*, McGraw-Hill, 2001; J. A. Pechenik, *Biology of the Invertebrates*, 4th ed., McGraw-Hill, 2000; *U.S. Air Force Glossary of Standardized Terms*, AF Manual 11-1, vol. 1, 1972; F. Casey, ed., *Compilation of Terms in Information Sciences Technology*, Federal Council for Science and Technology, 1970; *Communication-Electronics Terminology*, AF Manual 11-1, vol. 3, 1970; P. W. Thrush, comp. and ed., *A Dictionary of Mining, Mineral, and Related Terms*, Bureau of Mines, 1968; *A DOD Glossary of Mapping, Charting and Geodetic Terms*, Department of Defense, 1967; J. M. Gilliland, *Solar-Terrestrial Physics: A Glossary of Terms and Abbreviations*, Royal Aircraft Establishment Technical Report 67158, 1967; W. H. Allen, ed., *Dictionary of Technical Terms for Aerospace Use*, National Aeronautics and Space Administration, 1965; *Glossary of Space Terminology*, Office of Aerospace Research, U.S. Air Force, 1963; *Naval Dictionary of Electronic, Technical, and Imperative Terms*, Bureau of Naval Personnel, 1962; R. E. Huschke, *Glossary of Meteorology*, American Meteorological Society, 1959; *ADP Glossary*, Department of the Navy, NAVSO P-3097; *Glossary of Air Traffic Control Terms*, Federal Aviation Agency; *A Glossary of Range Terminology*, White Sands Missile Range, New Mexico, National Bureau of Standards, AD 467-424; *Nuclear Terms: A Glossary*, 2d ed., Atomic Energy Commission.

**McGRAW-HILL DICTIONARY OF SCIENTIFIC AND TECHNICAL TERMS,
Sixth Edition**

Copyright © 2003, 1994, 1989, 1984, 1978, 1976, 1974 by The McGraw-Hill Companies, Inc. All rights reserved. Printed in the United States of America. Except as permitted under the United States Copyright Act of 1976, no part of this publication may be reproduced or distributed in any form or by any means, or stored in a database or retrieval system, without the prior written permission of the publisher.

1 2 3 4 5 6 7 8 9 0 DOW/DOW 0 8 7 6 5 4 3 2

ISBN 0-07-042313-X

Library of Congress Cataloging-in-Publication Data

McGraw-Hill dictionary of scientific and technical terms--6th ed.

p. cm.

ISBN 0-07-042313-X (alk. paper)

1. Science--Dictionaries. 2. Technology--Dictionaries. I. Title: Dictionary of scientific and technical terms.

Q123.M15 2002
503—dc21

2002026436

EXHIBIT B
10/588,419

element's equivalent weight. Abbreviated meq. { 'mil ē,kwāt }
See tonne. { 'mil yā }

millard [ELEC] A unit of capacitance equal to one-thousandth of a farad. Abbreviated mF. { 'mil ē,fār ad }

milligal [MECH] A unit of acceleration commonly used in seismic measurements, equal to 10^{-3} galileo, or 10^{-5} meter per second per second. Abbreviated mGal. { 'mil ē,gāl }

milligauss [ELECTROMAG] A unit of magnetic flux density equal to one-thousandth of a gauss. Abbreviated mG. { 'mil ē,gās }

milligram [MECH] A unit of mass equal to one-thousandth of a gram. Abbreviated mg. { 'mil ē,gram }

milligram-hour [NUCLEO] A unit of radiation dose, equal to the radiation emitted by a source with an equivalent radium content of 1 milligram for a period of 1 hour. Abbreviated mgh. { 'mil ē,gram,aur }

millihenry [ELECTROMAG] A unit of inductance equal to one-thousandth of a henry. Abbreviated mH. { 'mil ē,henrē }

millihertz [PHYS] A unit of frequency equal to one-thousandth of a hertz. Abbreviated mHz. Also known as millicyclic (nic). { 'mil ē,hērtz }

millihg *See* millimeter of mercury.

milli-inch *See* mil. { 'mil ē,inch }

milli-k [NUCLEO] A unit of reactivity; the reactivity of a reactor in milli-k is equal to $1000(k - 1)$, where k is the effective multiplication factor. { 'mil ē,kā }

Millikan meter [ELECTR] An integrating ionization chamber in which a gold-leaf electroscope is charged a known amount and ionizing events reduce this charge, so that the resulting angle through which the gold leaf is repelled at any given time indicates the number of ionizing events that have occurred. { 'mil ē,kān,med ēr }

Millikan oil-drop experiment [ATOM PHYS] A method of determining the charge on an electron, in which one measures the terminal velocities of rise and fall of oil droplets in an electric field after the droplets have picked up charge from ionization in the surrounding gas produced by an x-ray beam. { 'mil ē,kān,'oil,drāp ik,sper ēmēnt }

milliliter [MECH] A unit of volume equal to 10^{-3} liter or 10^{-6} cubic meter. Abbreviated ml. Also known as mil. { 'mil ē,lēr }

milli-mass-unit [PHYS] One-thousandth of an atomic mass unit. Abbreviated mmu. { 'mil ē,'mas yū,nēt }

millimeter [MECH] A unit of length equal to one-thousandth of a meter. Abbreviated mm. Also known as metric line; inch. { 'mil ē,mēd ēr }

millimeter of mercury [MECH] A unit of pressure, equal to the pressure exerted by a column of mercury 1 millimeter high with a density of 13.5951 grams per cubic centimeter under standard acceleration of gravity; equal to 133.322387415 millibars; it differs from the torr by less than 1 part in 7,000,000. Abbreviated mmHg. Also known as millihg. { 'mil ē,mēd ēr,əv 'mōr kyō,rē }

millimeter of water [MECH] A unit of pressure, equal to the pressure exerted by a column of water 1 millimeter high with a density of 1 gram per cubic centimeter under the standard acceleration of gravity, equal to 9.80665 pascals. Abbreviated mmH2O. { 'mil ē,mēd ēr əv 'wōdēr }

millimeter wave [ELECTROMAG] An electromagnetic wave having a wavelength between 1 millimeter and 1 centimeter, corresponding to frequencies between 30 and 300 gigahertz. Also known as millimetric wave. { 'mil ē,mēd ēr 'wāv }

millimetric wave *See* millimeter wave. { 'mil ē,mētrik 'wāv }

millimicro *See* nano. { 'mil ē,mīkrō }

millimicron *See* nanometer. { 'mil ē,mīkrōn }

millirolling [MECH ENG] Mechanical treatment of materials to reduce a powder, to change the size or shape of metal powder particles, or to coat one powder mixture with another. [MIN ENG] A combination of open-cut and underground mining, when the ore is mined in open cut and handled underground. { 'mil ē,rlōlīng }

milling cutter [DES ENG] A rotary tool-steel cutting tool with peripheral teeth, used in a milling machine to remove material from the workpiece through the relative motion of workpiece and cutter. { 'mil ē,ktūr }

milling machine [MECH ENG] A machine for the removal of metal by feeding a workpiece through the periphery of a rotating circular cutter. Also known as miller. { 'mil ē,mē,shēn }

milling ore *See* second-class ore. { 'mil ē,ōr }

milling planer [MECH ENG] A planer that uses a rotary cutter rather than single-point tools. { 'mil ē,plān ēr }

milling system *See* chute system. { 'mil ē,sis,tēm }

Millington reverberation formula [ACOUS] A formula that states that the reverberation time of a chamber in seconds is 0.05 times its volume in cubic feet, divided by the sum over the surfaces of the chamber of the product of the surface's area in square feet by the natural logarithm of 1 minus its absorption coefficient. { 'mil ē,tōr,ri,vōr,bā,rā,shēn,for,myō,lē }

milling width [MIN ENG] Width of lode designated for treatment in the mill, as calculated with regard to daily tonnage. { 'mil ē,wdth }

million [MATH] The number 10^6 , or 1,000,000. { 'mil ē,yōn }

million electronvolts *See* megaelectronvolt. { 'mil ē,yōn ī,lek,trān,vōlt }

million floating-point operations per second [COMPUT SCI] A unit used to measure the processing speed or throughput of supercomputers or array processors. Abbreviated Mflop. { 'mil ē,yōn flō,fpoint ,ōp,ōr,tā,shān ,pōr 'sek,ānd }

million instructions per second [COMPUT SCI] A unit used to measure the speed at which a computer's central processing unit can process instructions. Abbreviated MIPS. { 'mil ē,yōn ī,struk,shān ,pōr 'sek,ānd }

millipede [INV ZOO] The common name for members of the arthropod class Diplopoda. { 'mil ē,plēdē }

Millipore filter [MICROBIO] A filter capable of ultrafine separation, used for purification and analyses of fluids, among other applications. { 'mil ē,pōr ,fil,ter }

millirad [NUCLEO] A unit of absorbed ionizing radiation dose equal to one-thousandth of a rad. Abbreviated mrad. { 'mil ē,rad }

milliroentgen [NUCLEO] A unit of radioactive dose of electromagnetic radiation equal to one-thousandth of a roentgen. Abbreviated mr. { 'mil ē,rent,gen }

millisecond [MECH] A unit of time equal to one-thousandth of a second. Abbreviated ms; msec. { 'mil ē,sek,ānd }

millisecond delay cap [ENG] A delay cap with an extremely short (20–500 thousandths of a second) interval between passing of current and explosion. Also known as short-delay detonator. { 'mil ē,sek,ānd di,la,kāp }

millisecond pulsar *See* fast pulsar. { 'mil ē,sek,ānd 'pōl,sār }

millisite [MINERAL] $(\text{Na},\text{K})\text{CaAl}_6(\text{PO}_4)_4(\text{OH})_9 \cdot 3\text{H}_2\text{O}$ White mineral composed of a basic hydrous phosphate of sodium, potassium, calcium, and aluminum. { 'mil ē,sīt }

millivolt [ELEC] A unit of potential difference or emf equal to one-thousandth of a volt. Abbreviated mV. { 'mil ē,vōlt }

millivoltmeter [ELEC] A voltmeter whose scale is calibrated to indicate voltage values in millivolts. { 'mil ē,vōlt,med ēr }

milliwatt [MECH] A unit of power equal to one-thousandth of a watt. Abbreviated mW. { 'mil ē,wāt }

mill length *See* random length. { 'mil ē,leñkth }

Millon's reagent [CHEM] Reagent used to test for proteins; made by dissolving mercury in nitric acid, diluting, then decanting the liquid from the precipitate. { 'mil ē,lōn,ri,ā,jēnt }

mill ore [MIN ENG] An ore that must be given some preliminary treatment before a marketable grade or a grade suitable for further treatment can be obtained. { 'mil ē,ōr }

millrace [CIV ENG] A canal filled with water that flows to and from a waterwheel acting as the power supply for a mill. { 'mil ē,rās }

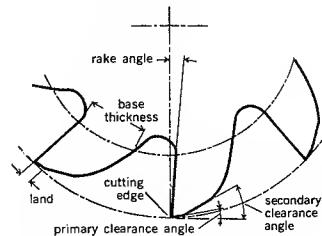
mill run [MIN ENG] 1. A given quantity of ore tested for its quality by actual milling. 2. The yield of such a test. { 'mil ē,run }

mill scale [MET] A surface layer of ferric oxide (Fe_3O_4) that forms on steel or iron during hot rolling. { 'mil ē,skāl }

Mills cross [ELECTROMAG] An antenna array that consists of two antennas oriented perpendicular to each other and that produces a narrow pencil beam. { 'milz 'krōs }

Mills-Crowe process [MIN ENG] Method of regeneration of

MILLING CUTTER



Typical milling cutter teeth.